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MONTHLY NOTICES

OF THE

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W. H. M. Christie, M.A., F.R.S., President, in the Chair.

Edward Carpmael, B.A., The Ivies, St. Julian's Farm Road, West Norwood, S.E.;
James George Petrie, 15 Mercer's Road, Holloway, N.,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed as Fellows of the Society, the name of the proposer from personal knowledge being appended:—

Richard Evan Day, M.A., Lecturer on Nautical Astronomy at the Birkbeck Institute, 48 Belsize Square, N.W. (proposed by the Rev. A. L. Watherston);
Philip F. Duke, Journalist, Hendon, Middlesex (proposed by the Rev. S. J. Perry);
The Rev. Thomas Jones, B.A., LL.D., Rector of Curdworth, Warwickshire (proposed by Professor J. C. Adams);
James Oddie, J.P., F.G.S., F.R.G.S., School of Mines, Ballarat, Victoria (proposed by A. Cowper Ranyard).

The following were proposed by the Council as Foreign Associates:—

S. C. Chandler, Cambridge, Mass., U.S.A.;
N. C. Dunér, Observatory, Lund, Sweden;
Paul Henry, Observatory, Paris;
Prosper Henry, Observatory, Paris.

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Mean Areas and Heliographic Latitudes of Sun-spots, 1874 *to* 1888, *deduced from Photographs taken at Greenwich, at Dehra Dûn (India), and in Mauritius.*

(*Communicated by the Astronomer Royal.*)

The following tables give the results of the measurements of solar photographs taken at the Royal Observatory, Greenwich, at Dehra Dûn, India, and at the Royal Alfred Observatory, Mauritius, for each synodic rotation of the Sun in 1888, and for each year from the commencement of the Greenwich series. The Indian series of Sun pictures used in these measurements begins on 1881 December 22, and the Mauritius series on 1885 January 3. The daily photographic record is practically complete from the beginning of 1882.

Table I. gives the mean daily areas of umbræ, whole spots, and faculæ for each synodic rotation of the Sun in 1888. The areas are given in two forms: first, projected areas—that is, as seen and measured on the photographs, these being expressed in millionths of the Sun's apparent disk; and next, areas as corrected for foreshortening, the areas in this case being expressed in millionths of the Sun's visible hemisphere. Table II. gives the mean daily areas (corrected for foreshortening) for each year from the commencement of the Greenwich series, and the projected areas for the years 1882 to 1888, the projected areas for the years preceding 1882 not having yet been computed. Table III. exhibits for each rotation in 1888 the mean daily area of whole spots, and the mean heliographic latitude of the spotted area, for spots north and for spots south of the equator, together with the mean heliographic latitude of the entire spotted area, and the mean distance from the equator of all spots. Table IV. gives the same information for each year from 1874 to 1888.

Table I.

No. of Rotation.	Date of Commencement of each Rotation.	No. of days on which Photographs were taken.	Mean of Daily Areas.					
			Projected.			Corrected for Foreshortening.		
			Umbræ.	Whole Spots.	Faculæ.	Umbræ.	Whole Spots.	Faculæ.
458	1887 December 26·77	26	33	202	366	24	145	462
459	1888 January 23·11	27	3	14	205	3	15	255
460	February 19·45	26	37	243	219	24	157	262
461	March 17·77	27	5	37	279	5	34	299
462	April 14·06	26	5	29	190	4	26	223
463	May 11·30	28	50	276	203	37	206	226
464	June 7·51	27	7	58	305	5	36	326
465	July 4·71	27	4	30	177	3	25	214
466	July 31·91	27	4	28	130	3	20	158
467	August 28·15	28	31	208	235	23	152	279
468	September 24·42	27	2	19	120	1	8	143
469	October 21·71	27	51	304	120	34	205	135
470	November 18·01	26	36	204	216	24	143	234

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